

CALIFORNIA COASTAL COMMISSION

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Tu11b

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Commission Action:	

STAFF RECOMMENDATION REGULAR CALENDAR

Permit Number:	E-99-01
Applicant:	ExxonMobil Production Company
Agent:	Simon Poulter, Padre Associates, Inc.
Project Location:	About 8,100 feet offshore of the City of Seal Beach, Orange County, State Lease PRC 186.5 (Exhibit 1).
Project Description:	Removal of Belmont Island, including well conductors, caisson core, decks, tower, pilings, wharves, boat landing and rock rip-rap; and abandonment in place of one electrical power cable and four pipelines (Exhibit 2).
Substantive File Documents:	See Appendix B

SYNOPSIS

ExxonMobil is applying for a coastal development permit to decommission and remove Belmont Island, a non-operating offshore oil and gas production facility, and to abandon in place a submarine power cable and four pipelines. Belmont Island is located approximately 8,100 feet offshore from Seal Beach in Orange County on State Lease PRC 186.5.

The facility components to be removed include: the south span and south tower, the concrete caisson deck and wall structures, approximately 9,735 cubic yards of sand and quarried rock fill in the caisson core, 70 well conductors, 106 untreated wooden piles, the east wharf decking and piles, the steel strut support system on the west face, the north wharf decking and piles, the boat landing jacket and piles, the steel sheet pile caisson the clean rock and sand fill inside the caisson, and the 15,724 cubic yards of rock rip-rap surrounding the caisson. The applicant proposes to cut off all island structures even with or below the natural seafloor. The quarried rock rip-rap around the caisson core is proposed to be taken by barge to the Bolsa Chica Artificial Reef (BCAR¹). The applicant proposes to take other island components by barge to temporary storage areas in the Long Beach or Los Angeles Harbor or directly to approved facilities onshore for disposal.

The project is projected to take approximately seven and one-half months to complete.

Consideration of On-Site Artificial Reef

The applicant considered the alternative of converting a portion of the rock rip-rap found at Belmont Island to an on-site artificial reef. In consultation with the California Department of Fish and Game ("CDFG"), several options were considered. However, CDFG and applicant surveys of the marine resources present at the island and discussions between the applicant and the U.S. Coast Guard and the California State Lands Commission ("SLC") led to the conclusion that there are physical drawbacks and liability concerns regarding using the site for an artificial reef. Drawbacks include turbid water conditions at the site which prevent kelp from growing, and the potential for vessel groundings. Staff agree with the assessments of the other state and federal agencies that this alternative is neither a feasible option nor the environmentally preferable alternative. On December 3, 1999, the SLC approved ExxonMobil's proposal to decommission and remove Belmont Island, including utilization of the rock rip-rap at the BCAR. (*For more details, see section 4.4 of this report*).

Coastal Act Issues

Marine Resources

The proposed project is designed to restore the marine environment to a condition similar to the natural conditions present at the project site prior to island construction. However, in order to achieve this objective, project activities will result in some incidental impacts to marine resources. The potential impacts and mitigation measures include:

- Incidental displacement of Garibaldi (*Hypsypops rubicundus*), a nongame fish species protected under state law. The applicant has a no-fishing policy in place at the island, and will instruct project personnel of the policy and the protected status of the fish.

¹ Augmentation of BCAR, to a limit of 120,000 tons of clean material, was approved by the Coastal Commission in October 1995, under Consistency Certification CC-81-95.

- Potential impacts to benthic marine invertebrates from decommissioning activities and anchoring. The marine invertebrates in the project area are not unique, are adapted to turbid conditions, and are generally short-lived. The applicant proposes to use anchoring techniques that minimize impacts to benthic organisms.
- Incidental displacement of marine birds that utilize the island for foraging or resting. The impact is considered insignificant because their use of the island is light, and they will be able to utilize similar areas nearby.
- Potential for interactions with marine mammals. The applicant will train all project personnel to follow the procedures contained in its Marine Wildlife Contingency Plan.
- Project-related discharges. The potential exists for minor amounts of lead-based paint, concrete, steel cuttings, wastewater, marine growth, island components and other project-related debris to be discharged. The applicant proposes to use best management practices, including using special containment tanks to remove hazardous debris, using cooling water on the concrete saws, installing a system under the decks to minimize discharges, and removing any project-related debris on the seafloor at the conclusion of the project. **Special Condition 2** requires the applicant to take precautions to contain floatable material generated as a result of the project and dispose of all such materials at an approved landfill. **Special Condition 1** requires the applicant to submit a report to the executive director regarding the results of the debris removal survey to verify that all debris have been removed.
- Temporary, short-term and localized turbidity. The applicant proposes to funnel wastewater from concrete cutting activities to the caisson core then remove the water with a vacuum, placing it into special containment tanks for removal.

Oil and Gas Spill Prevention and Response

The proposed project has the potential to result in a release of hydrocarbons to the coastal environment. **Special Condition 3** requires that the oil and gas pipelines be cleaned to a level that maximizes spill prevention, less than 15 ppm Total Petroleum Hydrocarbons (“TPH”). **Special Condition 4** requires the applicant to document the level of TPH remaining after the cleaning by sending test samples to a state-certified laboratory.

Regarding oil spill response, **Special Condition 6** requires that a seep tent and support vessels be used during the cutting of the oil and gas lines. **Special Condition 5** requires the applicant to submit written evidence to the executive director that it has contracted with Clean Coastal Waters (an oil spill cooperative) for the duration of the proposed project. Even with these Special Conditions, Commission staff find that the proposed project is inconsistent with the second test contained in section 30232 of the Coastal Act, which requires that “*Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur*”, because state-of-the-art oil spill response is such that no equipment is currently available that can effectively keep spilled oil off of the coastline. Notwithstanding this inconsistency, Commission staff believe that the proposed development can be approved under section 30260

of the Coastal Act, which provides for special approval of coastal-dependent industrial facilities that are otherwise found inconsistent with the resource protection and use policies contained in section 3 of the Coastal Act. The decommissioning of an offshore oil and gas production island is considered “coastal dependent” under section 30101 of the Coastal Act.

Public Access and Recreation

Island demolition and removal activities will not adversely impact recreational users or interfere with the public’s access to the beach. In addition to island decommissioning, the applicant proposes to abandon in place four pipelines and one electrical power cable that are currently buried 4 to 9 feet below the seafloor and the surface. The pipelines and cable are unlikely ever to be uncovered because they are located in a high depositional offshore environment and have never been exposed. However, in the event that they are exposed in the future, **Special Condition 7** requires that if any of the pipelines or the power cable become exposed, the executive director will schedule for the Commission’s consideration the question of whether removal of the facilities may be necessary to mitigate individual or cumulative adverse impacts to coastal resources. If the Commission finds in the future that the facilities should be removed, ExxonMobil shall submit a plan for removal of the facilities in the form of an application to amend this permit.

Staff Recommendation

The Commission staff recommends that the Commission approve the proposed project, as conditioned.

1.0 STAFF RECOMMENDATION

Motion:

I move that the Commission approve Coastal Development Permit Application No. E-99-01 subject to conditions set forth in the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a YES vote. Passage of this motion will result in approval of the permit subject to conditions set forth in the staff recommendation and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve the Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.0 STANDARD CONDITIONS See Appendix A.

3.0 SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Report on Removal of Project-Related Debris. Within 90 days of project completion,** the applicant shall submit to the executive director a report containing 1) a description of the debris items removed from the vicinity of the project area at the conclusion of the project, and 2) the results of the side scan sonar survey to verify that all project-related debris has been removed.
2. **Containment and Removal of Floatable Materials.** The applicant shall (1) take precautions to ensure that floatable materials of all types generated as a result of the project do not leave the project site; and (2) collect any floatable materials generated and dispose of them at an approved landfill.

3. **Cleaning Oil and Gas Pipelines.** The applicant shall clean the interior of the oil and gas pipelines to a level of less than 15 ppm Total Petroleum Hydrocarbons (TPH).
4. **Test Results from Cleaning Oil and Gas Pipelines.** The applicant shall document the level of TPH at the conclusion of flushing operations using a state-certified laboratory and a test method acceptable to the executive director. Within 30 days of completion of pipeline flushing, ExxonMobil will provide the test results to the executive director.
5. **Contract with Clean Coastal Waters.** Prior to issuance of this permit, the applicant shall submit to the executive director written evidence that, for the duration of the Belmont Island decommissioning project, it has contracted with Clean Coastal Waters (CCW) for oil spill response and clean up services.
6. **Seep Tent and Support Vessel.** Prior to cutting the oil and gas pipelines offshore, the applicant shall deploy a seep tent over each of the cut points and provide a support vessel to capture and remove from the marine environment any residual hydrocarbons that may be released from the lines when they are cut.
7. **Exposure of Abandoned Facilities.** If any of the facilities (i.e., four pipelines and one electrical power cable) that have been allowed to be abandoned in place under this permit become exposed to the natural (i.e., air or aquatic) environment, the executive director will schedule for the Commission's consideration the question of whether removal of the facilities may be necessary to mitigate individual or cumulative adverse impacts to coastal resources (e.g., hazards to recreational users). In the event of an affirmative determination by the Commission on the foregoing question, ExxonMobil shall, within 60 days after such determination, submit a plan for the removal of such facilities in the form of an application to amend this permit.
8. **Approval or Waiver from the South Coast Air Quality Management District.** Prior to issuance of this permit, the applicant shall submit to the executive director (a)(1) a copy of the permit(s) issued by the South Coast Air Quality Management District ("SCAQMD") for the decommissioning project and project equipment, and (a)(2) written evidence of the mitigation measures, if any, the SCAQMD is imposing to offset project-related air quality impacts; **or** (b) written evidence of a waiver from the SCAQMD indicating that no permit(s) or mitigations are required for the project.

4.0 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

4.1 Project Location

Belmont Island is located on State Lease PRC 186.5, 8,100 feet offshore from Seal Beach, Orange County, in a water depth of approximately 42 feet. Four subsea pipelines, used to carry

gas, oil, and fresh water and one submarine power cable are also located on State Lease PRC 186.5 and connect Belmont Island to 101 Marina Dr., Seal Beach, the former site of ExxonMobil Production Company's ("ExxonMobil") Seal Beach Oil Separation Facility and Tank Farm. The majority of the project work is proposed to take place on State Lease PRC 186.5; some work to flush and abandon the pipelines will take place at 101 Marina Drive.

4.2 Project Background

Monterey Oil Company began construction of Belmont Island in 1953, building the island's caisson core, concrete deck, the north wharf, and submerged pipelines by 1954. The caisson core consists of ferrous steel sheet piles, and is filled with quarry rock, native sand, and 106 wooden bearing piles; seventy well conductor pipes were installed within the core to produce oil and gas. Between 1955 and 1958, more features were added to the island: a concrete wall around the caisson core, quarried rock rip-rap around the exterior of the core, internal walls, a reinforced concrete drill deck, a steel catwalk, a steel tower, a bridge to the caisson core, stairways, the east wharf, a shop, a mud tank, a crane pedestal, and a mezzanine deck. In 1960, the submarine electrical power cable was installed, converting the island to shore power. In 1962 and in 1983, steel bracing and supports were installed on the north wharf to stabilize it. Also in 1983, a steel boat landing jacket, new deck sections, a crew change room, and electrical equipment were added to the island.

Fifty-six of the seventy wells at Belmont Island were used to produce oil and gas; the remainder were never used. Oil and gas production ceased at Belmont Island in 1995. In June 1997, the Coastal Commission approved a de minimis waiver (E-99-03-W) for Exxon Company U.S.A., for flushing and cutting the wellhead conductors on Belmont Island, so the work could occur prior to the onset of the winter storm season.

Exxon Company formerly operated an oil separation facility and tank farm to handle the oil and gas produced from the Belmont Island wells at 101 Marina Drive in Seal Beach. In April 1997, the Coastal Commission approved a de minimis waiver (E-97-08-W) for A.C. Pipe and Equipment Company to disassemble and remove five oil storage tanks and associated production equipment and piping from Exxon's former oil separation facility and tank farm. All of the structures were above ground, and had been disused since the facility was shut in and taken out of service in January 1994. In December 1999, the Coastal Commission approved a de minimis waiver (E-99-12-W) for Exxon Company for demolition and removal of a 250-sq. ft. building located at the same site. Any further decommissioning of facilities or other development at the onshore property will require a coastal development permit.

4.3 Project Description

The applicant proposes to decommission and remove Belmont Island, a non-operating oil and gas production facility, and abandon in place one two-inch diameter submarine electrical power cable, two three-inch diameter steel pipelines formerly used to ship produced gas to the onshore terminal, one eight-inch diameter steel pipeline formerly used to ship produced oil to the onshore

terminal, and one three-inch diameter steel pipeline formerly used to ship fresh water from the onshore terminal to Belmont Island (Exhibit 2).

ExxonMobil proposes to dismantle Belmont Island and remove its components in the following sequence: south span and south tower, concrete caisson deck and wall structures, approximately 392 cubic yards of hydrocarbon-impacted sand and quarried rock fill in the caisson core, which contains approximately 9,735 cubic yards of fill; 70 well conductors; 106 untreated wooden piles; east wharf decking and piles; steel strut support system on the west face; north wharf decking and piles; boat landing jacket and piles; steel sheet pile caisson the clean rock and sand fill inside the caisson; and the 15,724 cubic yards of rock rip-rap surrounding the caisson. The total project is projected to take approximately seven and one-half months (30 weeks²). Concrete structures will be saw cut or broken into pieces; wood and concrete piles will be extracted, saw cut, or severed with a pile buck; and steel components will be extracted, torch cut or mechanically cut; a derrick barge will be used for lifting and removal of structures. All island structures will be cut off even with or below the natural seafloor.

The quarried rock rip-rap around the caisson core is proposed to be taken by barge to the Bolsa Chica Artificial Reef (BCAR). These materials are estimated to weigh between 15,000-30,000 tons. Augmentation of BCAR, to a limit of 120,000 tons of clean material, was approved by the Coastal Commission in October 1995, under Consistency Certification CC-81-95. Other uncontaminated island components will either be taken to temporary storage areas in the Long Beach or Los Angeles Harbor, then recycled³ or disposed of in approved facilities onshore.

The electrical power cable will be disconnected from the junction box onshore by Southern California Edison. Offshore, the cable will be cut at the seafloor near the south tower, and trenched into the seafloor to a depth of approximately five feet below the natural bottom. The oil pipeline and the two gas pipelines will then be flushed with seawater to remove hydrocarbon contamination; flushing will continue until tests show that the level of hydrocarbons is 15 ppm or less. All wastewater generated during flushing will be disposed of at an appropriate onshore facility. The eight-inch pipeline will then be filled with grout from the onshore property to the point offshore where the line is approximately 15 feet below mean lower low water (MLLW); wastewater generated during the grouting procedure will also be disposed of at an appropriate onshore facility. The final proposed disposition of the four pipeline terminations onshore is: the 8-inch line will be plugged with cement, the three 3-inch lines will be welded closed, and all lines will be buried beneath the surface. Offshore, the four pipelines are proposed to be disconnected from the caisson, plugged, and re-buried via jetting to approximately 4-6 feet below the seafloor, the approximate depth of the straight section of the lines at this location.

Once island decommissioning and pipeline abandonment is complete, ExxonMobil proposes to remove from the seafloor debris items identified through surveys conducted in 1997 and any debris generated during decommissioning procedures, to 1000 feet from the former center of

² This estimate includes cutting and preparation of the well conductors, which was previously approved by the Coastal Commission under coastal development permit de minimis waiver E-99-03-W.

³ Materials that will be evaluated for recycling include steel, concrete, grout, and the well conductors.

Belmont Island. Buried objects will be excavated by divers using airlifts or handjets, then the objects will be hoisted to the surface with slings or other rigging and transported to shore for disposal. Project personnel will conduct a side scan sonar survey to ensure the area has been cleared of debris.

The final project activity ExxonMobil proposes is to smooth the mound of sand that surrounds the caisson core. Currently 15 feet high, it will be disturbed and partially reduced during decommissioning and removal activities. A clam bucket will be used to flatten the remaining mound of sand in a circle to a depth of 2-3 feet; it is expected that wave and current action will further disperse the sand mound.

4.4 Project Alternative - Conversion of Part of Island to an On-Site Artificial Reef

Prior to submitting a Belmont Island Decommissioning Plan to the California State Lands Commission (“SLC”), the applicant participated in a number of pre-application meetings with staff of the SLC, Coastal Commission, U.S. Army Corps of Engineers, and the California Department of Fish and Game (“CDFG”) to discuss, among other issues, the option of converting the rock rip-rap at the island to an on-site artificial reef.

In consultation with staff of CDFG’s Artificial Reef Program, the applicant initiated an artificial reef design process that included conducting site-specific bathymetry, bottom sediment characterization, seafloor feature, and biological surveys. CDFG divers also conducted dive surveys at the island to evaluate the existing biological community at the site. The applicant’s biological survey showed that the majority of fish aggregate at the pier pilings⁴, not the rock rip-rap. Nevertheless, the applicant developed three potential on-site reef designs, a High Relief Onsite Reef, a Reconstructed High Relief Reef, and a Low Relief Onsite Reef, to be considered by the appropriate regulatory agencies.

High Relief Onsite Reef

All piling would be cut at a height below the existing rip-rap or mudline. Existing rip-rap and armor rock would be moved only to the extent required to safely remove the structures. Portions of steel, concrete and wood structures located below the rock line would be abandoned in place. The intent of this alternative is to decommission the island with the least amount of disturbance to rip-rap.

Reconstructed High Relief Reef

The intent of this alternative is to remove all island structural components down to and below natural mudline, while reconstructing a high profile rocky mound onsite using the existing rip-rap. The rock would be mounded at the site to create a crescent shaped mound standing approximately 10-15 feet below the water surface.

⁴ The pier pilings must be removed as part the applicant’s lease clearance obligations.

Low Relief Onsite Reef

Under this option all island components would be removed down to and below natural mudline, while constructing a low profile rocky mound onsite using the existing rock rip-rap. Removal of the steel towers, concrete wharves and caisson core would require that the rock rip-rap be removed away from the caisson core and repositioned around the island site. The rock would be used to create an oval-shaped reef structure standing about 39 to 33 feet below the water surface.

The applicant concluded, after consultation with the staff of the CDFG, U.S. Coast Guard and SLC, that an on-site reef option is not feasible or the least environmentally damaging project alternative. The physical site-specific drawbacks to an on-site reef include:

- All on-site reef alternatives raise significant vessel grounding hazard concerns and would require that aids to navigation be installed. The U.S. Coast Guard requires a minimum navigation clearance of 30 feet at this location;
- Poor water quality will severely limit species diversity below the 25 foot depth relative to other existing reef sites including the CDFG reef at Bolsa Chica; and
- Kelp is unlikely to grow naturally at this site due to the relatively turbid water conditions and the lack of a nearby kelp bed to provide spores for recruitment. The turbid water conditions would probably also prevent transplanted kelp from surviving. Also, the marine species at Belmont Island are not unique to the area and are similar to those found at the neighboring Long Beach Breakwater, Los Alamitos and Seal Beach jetties and other offshore oil platforms.

There are also concerns about ownership and liability and the proximity of the site to local harbors and marinas. In short, the staff of the U.S. Coast Guard, SLC and CDFG agreed that the ExxonMobil's Belmont Island site is not a feasible site for an artificial reef.

The applicant also developed an off-site reef alternative that involves loading the rock rip-rap onto barges and depositing the rock at the existing Bolsa Chica Artificial Reef site, an approved CDFG artificial reef located in about 80 to 120 feet of water approximately three miles offshore of Huntington Beach State Park. The benefits of this alternative are that (a) CDFG has agreed to acquire the rock rip-rap to enhance the Bolsa Chica Artificial Reef (and therefore assume ownership and liability); (b) water clarity is superior as compared to the site of ExxonMobil Belmont Island; and (c) the Bolsa Chica site eliminates potential vessel grounding concerns since the water depth is greater than at Belmont Island.⁵

On December 3, 1999, the SLC approved the Belmont Island Decommissioning Project that includes transporting the rock rip-rap to the Bolsa Chica Artificial Reef.

⁵ The applicant notes that all on-site and off-site artificial reef options will require significant movement of the rip-rap and potential mortality of species that have colonized on the rock.

On December 6, 1999, after the SLC had already approved the Belmont Island Decommissioning Project, a group called Heal the Harbor, Inc. sent letters to ExxonMobil, the SLC and Coastal Commission (Exhibit 3) offering to assume the legal ownership of, and financial liability for, a Belmont Island artificial reef. Heal the Harbor has not demonstrated control over the area (e.g., a lease from the SLC) or adequate financial resources to assume legal liability for such a reef structure. For these reasons, combined with the site-specific concerns discussed above, the Coastal Commission believes that an on-site Belmont Island reef is not a feasible option or the environmentally preferable alternative.

4.5 Other Agency Approvals

4.5.1 State Lands Commission

As “lead agency” under the California Environmental Quality Act (“CEQA”), the SLC prepared a Mitigated Negative Declaration for the decommissioning of facilities on Belmont Island, removal of the island, and abandonment in place of the electrical power cable, water pipeline, oil pipeline, and gas pipelines. On December 3, 1999, the SLC certified Negative Declaration 694 (State Clearinghouse No. 99031117) and approved the decommissioning of Belmont Island facilities, removal of the island, and abandonment in place of the power cable and pipelines.

4.5.2 U.S. Army Corps of Engineers

On April 27, 1999, the Los Angeles District of the U.S. Army Corps of Engineers (“ACOE”) conditionally approved Provisional Permit 1999-15473-RLK for the proposed project, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 *U.S.C. 1344*). Section 10 of the Rivers and Harbors Act regulates the diking, filling and placement of structures in navigable waterways. Because the project is located within the navigable waters of the United States and will result in the excavation of 37 cubic yards of native seafloor materials, Padre Associates, Inc., in a letter dated May 25, 1999 requested that the ACOE issue a permit for the project pursuant to Section 404 of the Clean Water Act (“CWA”) (33 *U.S.C. 1344*). Section 404 of the CWA regulates disposal of dredge and fill materials into waters of the United States, including all streams to their headwaters, lakes of 10 acres and contiguous wetlands”). On May 27, 1999, the ACOE determined that a permit would not be required under Section 404 of the CWA because the project involves incidental fall back of materials, rather than fill.

Pursuant to section 307(c)(3)(A) of the Coastal Zone Management Act, any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Coastal Commission’s concurrence in a certification to the federal permitting agency that the project will be conducted consistent with the California Coastal Management Program. The Commission’s action on this permit application shall comprise its federal consistency agency review for ExxonMobil’s proposed project.

4.5.3 Santa Ana Region Regional Water Quality Control Board

The California Regional Water Quality Control Board, Santa Ana Region (“Santa Ana Region”) regulates marine water quality in the Belmont Island project area. The Santa Ana Region issued a conditional clearance for the proposed project in a letter dated May 6, 1999 (Exhibit 4). The letter stated that the proposed project entails demolition and dredging within navigable waters, which will result in a temporary, short-term plume that will have a minimal and temporary impact on water quality; it also stated that a 401 Certification will not be required since the U.S. Army Corps of Engineers intends to issue a Letter of Permission for the project. In a letter dated June 23, 1999 (Stewart 1999a) (Exhibit 5) the Santa Ana Region staff stated that they had no objection to ExxonMobil’s proposal to allow to fall to the ocean bottom marine growth removed from the caisson walls and other below-water island structures.

4.5.4 South Coast Air Quality Management District

The South Coast Air Quality Management District (“SCAQMD”) is the local air district responsible for implementing federal and state air quality standards in the Belmont Island project area. SCAQMD staff will review the proposed project to determine if air quality permits will be required for decommissioning activities and project equipment, and if mitigation measures beyond those contained in the MND are necessary to offset project-related air quality impacts. See section 4.6.6 of this report for project-related air quality information.

4.6 COASTAL ACT ISSUES

4.6.1 Marine Resources and Water Quality

Coastal Act § 30230 states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act § 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining

natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The proposed decommissioning and removal of Belmont Island is designed to restore the marine environment to a condition similar to the natural conditions present at the project site prior to island construction. Some impacts to marine resources, projected to be short term and temporary, will occur during project activities, however.

Potential impacts to marine resources include some incidental loss of marine invertebrates and fish; incidental disturbance of marine birds; accidental injury to or death of marine mammals; disruption of marine biological resources from artificial night lighting; and localized alterations in marine water and sediment, including discharge of minor amounts of wastewater and materials into marine waters, temporary and localized turbidity of marine waters, and introduction of small amounts of copper into marine sediments.

No Impacts to Wetlands, Kelp, Eelgrass or Surfgrass

The proposed project will not result in any impacts to wetlands, kelp, eelgrass or surfgrass. No wetlands are found within the lease area or on the applicant's onshore property, and a marine biological survey conducted for this project in 1999 (de Wit 1999) found no evidence of kelp, eelgrass or surfgrass on Belmont Island. In addition, none grows on the seafloor in the vicinity of the pipelines and power cable, or in the area that will be utilized by project vessels during decommissioning activities.

Marine Invertebrates and Fish

The construction of Belmont Island in the early 1950s resulted in the incidental creation of human-made substrates, consisting of concrete caisson core walls; wooden pilings; concrete and steel H-beam piles; a tubular steel jacket boat landing structure with struts; strut supports; and native sand and quarried rock rip-rap which encircles the base of the structure and extends from the seafloor to approximately 15-18 feet MLLW. Consistent with state requirements for decommissioning oil production facilities, ExxonMobil proposes to remove all development associated with the island or to cut structures off even with or below the seafloor. The rock rip-rap surrounding the island is proposed to be used for augmentation of the Bolsa Chica Artificial Reef ("BCAR"), and all of the other island components will be recycled or disposed of onshore, in approved facilities. The Coastal Commission approved augmentation of the Bolsa Chica Artificial Reef in October 1995 (Consistency Certification CC-81-95).

A marine biological survey conducted for this project in 1999 documented the marine resources associated with Belmont Island and the surrounding seafloor, the eastern Long Beach Breakwater, and Platform Esther (de Wit 1999). The report summarizing the survey also included results of a 1992 study of BCAR. Fifty taxa of marine species were documented during the survey at Belmont Island. The survey found that the rip-rap and sedimentary substrates at the four sites were similar, and, except for algae and fish, the rip-rap at Belmont Island had led to the

incidental support of a relatively diverse marine biological community that is similar to those found within the same water depths at the Long Beach Breakwater and Platform Esther. The algal community at Belmont Island was characterized as depauperate, while the fish present at the island were more diverse; this difference appeared to be related to the dock and pier pilings present at the island. The marine waters surrounding Belmont Island were described as relatively turbid.

There is one protected marine fish species that occurs at the project site, the Garibaldi (*Hypsops rubicundus*). Garibaldis are the state fish and are protected under state law from sport and commercial take. Before decommissioning operations begin, the applicant will inform all project personnel of the policy and the Garibaldi's protected status. Though the project will displace Garibaldis, it is likely that they will recolonize similar areas nearby.

Marine benthic organisms in the project area are generally short-lived and are adapted to turbid conditions that result from a variety of local factors, including currents, the San Gabriel River and storms. They include sand dollars, tube worms, sea pens, sea pansies, annelid worms, tube worms and crustaceans (Dugas 1999 and California State Lands Commission 1999a). Though the benthic marine organisms found in the vicinity of Belmont Island are not unique and do not have any special status, ExxonMobil proposes to use an anchoring technique called "fly-over anchoring" to place the anchors in predetermined locations on the seafloor, thus reducing potential crushing and smothering impacts to benthic marine organisms.

Marine Birds

Approximately 105 species of marine birds are found in the project area, including two endangered species, the California brown pelican and the California least tern. As a human-made structure, Belmont Island provides an incidental benefit as a resting and foraging site for marine birds. The noise and demolition activities will discourage marine birds from using the site, and the removal of Belmont Island will incidentally displace the marine birds that occasionally utilize it. However, marine birds have not significantly utilized the island. In addition, the Long Beach breakwaters are nearby, providing similar resting and foraging areas as the island for California brown pelicans, least terns and other birds (Dugas 1999). The MND found that impacts to marine birds as a result of the proposed project are adverse, but not significant.

Marine Mammals

In order to decommission and remove Belmont Island, the project will require the use of vessels and barges, and will result in a temporary, localized increase in vessel traffic in the project area. Though unlikely, the possibility exists that a marine mammal could be struck and injured or killed by a vessel or barge during project activities. Marine mammals do not haul out on Belmont Island, and the demolition of the island is not expected to result in any impacts to marine mammals.

Marine mammals are protected under the Marine Mammal Protection Act of 1972, and under the Endangered Species Act of 1973, it is unlawful to harass, harm, or kill endangered and threatened marine mammal species. In the Southern California Bight area, five endangered marine mammal species (Blue whale, Fin whale, Sperm whale, Right whale, and Sei whale) and two threatened marine mammal species (Sea otter and Guadalupe fur seal) are known to occur; other, non-listed species in the project area include, but are not limited to, the Gray whale, common dolphin, California white-sided dolphin, sea lion, and harbor seal. ExxonMobil has prepared a Marine Wildlife Contingency Plan for use by project personnel, so that they can avoid harming marine mammals, and personnel will be trained prior to the start of the project. The plan includes a requirement for marine mammal observers on vessels, avoidance procedures, and instructions for what to do if an accidental collision with a marine mammal occurs. Specifically:

- support vessel operators will make every effort to maintain a distance of 1,000 feet from whales to minimize the possibilities of collision and disturbance;
- support vessels will not cross directly in front of migrating whales;
- when paralleling whales, support vessels will not operate at a speed faster than the whales, and will operate at a constant speed;
- female whales will not be separated from their calves;
- support vessels will not be used to herd or drive whales;
- if a whale engages in evasive or defensive actions, support vessels will drop back until the animal calms down or moves out of the area;
- if dolphins ride the boat waves or frolic near a vessel, the vessel operator should slow the vessel down and keep a steady course until they lose interest;
- project personnel should make every effort to avoid approaching and disturbing pinnipeds and other marine mammals in the water or at rest;
- project personnel should encourage any pinnipeds that hauled out in the project area and are at risk of injury from project activities to move from the hazard area by making a noise such as clapping;
- if a vessel collides with a marine mammal, the vessel operator should stop, if it is safe to do so, then proceed if proceeding will not further damage the animal; and
- after a vessel collision with a marine mammal, the vessel operator must document the conditions of the accident, and the operator or other project personnel must contact the National Marine Fisheries Service Stranding Coordinator to report the accident.

Artificial Night Lighting

Most of the project activities are expected to occur during daylight hours, but some work may take place at night. For nighttime activities, artificial lighting will be used. Since the light is artificial, there is the potential that fish, invertebrates, and marine mammals could change some of behaviors in response to the light. However, the light sources will be similar to those used for other offshore oil and gas structures and in nearby port operations, their use will be temporary, and if work must be done after dark, their use will be necessary for practical and safety reasons. While there is the possibility that artificial lights at night could have affect marine resources, the potential impact is not likely to be significant.

Coastal Water and Sediment Quality

Discharges to Coastal Waters

Due to Belmont Island's location in the marine environment, some discharges to coastal waters are projected to occur as the applicant demolishes the island and removes its components. Minor amounts of lead-based paint, concrete, steel cuttings, wastewater, marine growth, and island components and other project debris and could be discharged as a result of the project. Project activities could also cause some localized turbidity in the marine environment.

Lead Paint, Wastewater and Cuttings

The MND found that the paint used on Belmont Island steel structures and concrete is lead-based, and stated that tests show the lead content ranges from 1,000 ppm to 87,000 ppm. Subsequently, in April 1999 Padre Associates (Zukor and Emslie 1999) tested concrete samples from the surfaces around the island, and the results showed that the concrete at the sample locations would not be considered a hazardous waste under state and federal regulations due to their lead content. The assessment did not include tests of other painted surfaces at the island.

To minimize potential discharges of cement dust and paint to the marine environment during concrete cutting activities, concrete saws are proposed to be used to cut the upper and lower concrete decks on Belmont Island as they are prepared for removal, and water will be used to cool the saws to minimize the release of fugitive dust. The upper deck drains to the lower deck, which in turn drains into the caisson core. The project schedule is designed such that the caisson core will be one of the last features to be demolished and removed, and thus the majority of the cooling water expected to be generated by the project will drain into, and be contained by, the caisson core. All water in the core will be removed later in the project schedule when all core materials are removed. The wastewater will be transported to shore in steel containment boxes for treatment (see section 4.6.2 of this report, Oil and Gas Spills for a discussion of the proposed procedures). Though the majority of the cooling water will drain into the core, a maximum of four barrels of wastewater could be incidentally discharged to the marine environment (Weber 2000).

Prior to beginning the project, ExxonMobil plans to develop a site safety plan, which will include procedures to handle lead-based paint. The company plans to recycle steel and concrete coated with lead based paint at an onshore facility permitted to handle such materials. The SLC has required in its Mitigation Monitoring Program that ExxonMobil prepare the plan for SLC review, prior to final project approval.

Demolition and Other Project-Related Debris

To reduce the possibility of introducing structural components of the island into marine waters, ExxonMobil proposes to install a containment system underneath the wharf decks. To ensure no human-made materials associated with the island are unintentionally left in the marine environment, ExxonMobil proposes to remove any debris generated by demolition activities as well as debris identified in side scan sonar surveys conducted in 1997. Divers will place debris items in slings or other rigging; they will then be hoisted to the surface and transported to shore for disposal. Buried items will be excavated with airlifts or handjets prior to removal. To verify that all debris has been removed, ExxonMobil personnel will survey the project area at the close of the project. The Commission is requiring in **Special Condition 1** that ExxonMobil submit a report to the executive director within 90 days of project completion describing the items removed and providing the results of the side scan sonar survey to verify that all project-related debris has been removed.

Marine Growth

As the components of the island are being demolished and readied for removal and offsite disposal, the potential exists for marine biological growth to be introduced into the marine environment. Divers will remove marine growth from the caisson walls and other underwater island components proposed for onshore disposal, and will allow the growth to fall to the ocean bottom. This procedure is preferred by the Santa Ana Region to prevent odor and solid waste disposal issues, provided the applicant undertakes adequate measures to minimize impacts to the receiving waters (Stewart 1999b), including preventing floatable materials from leaving the project site disposing of such floatable materials at a landfill site. The Santa Ana Region has requested that the ACOE include a condition in its Letter of Permission to prevent release of floatable materials to marine waters and to properly remove any floatable materials generated (Schubel 1999). Consistent with this request, the Coastal Commission imposes **Special Condition 2**, requiring that ExxonMobil (1) take precautions to ensure that floatable materials of all types generated as a result of the project do not leave the project site; and (2) collect any floatable materials generated and dispose of them at an approved landfill.

Temporary Turbidity

There are various aspects of the project that will result in increased temporary, short-term, localized turbidity due to suspension of native sediments in the project area, consisting of sand and soft, silty clay. The area of potential disturbance will extend approximately 50 feet beyond Belmont Island and will cover an area approximately two acres in size. Project activities that will result in turbidity include demolition and dredging to remove all island components, burial of the electrical power cable and pipeline ends, vessel anchoring, debris removal, flattening out the mound of native sand that will remain after island decommissioning, and incidental discharges to marine waters (as discussed earlier in this report).

In order to decommission and remove Belmont Island, the applicant must use equipment and techniques that will cause some turbidity of marine waters in the project area. With the exception of anchoring techniques, the nature of the project activities is such that turbidity cannot be avoided. The “fly-over anchoring” technique the applicant proposes to use to place the anchors in predetermined locations on the seafloor may serve to reduce some of the turbidity associated with anchoring.

The increased turbidity that will result from the project will decrease light availability and could smother or otherwise negatively affect some benthic marine organisms. However, as stated, the marine benthic organisms in the project area are adapted to turbid conditions. Also, the Santa Ana Region found that the plume of turbid water that will be generated by the project will result in a minimal and temporary impact on water quality, and thus does not need to be regulated under waste discharge requirements (Stewart 1999a). The Commission finds that the potential turbidity impacts of the proposed project are largely unavoidable, will be temporary and short-term, and will not significantly affect marine organisms or the biological productivity of marine waters.

Abandonment in Place of Electrical Power Cable and Pipelines

The applicant proposes to abandon in place two three-inch diameter steel pipelines formerly used to ship produced gas to the onshore terminal, one eight-inch diameter steel pipeline formerly used to ship produced oil to the onshore terminal, one three-inch diameter steel pipeline formerly used to ship fresh water from the onshore terminal to Belmont Island, and one two-inch diameter submarine electrical power cable.

Prior to abandonment, the eight-inch line is proposed to be filled with cement grout from the applicant’s onshore property to the point offshore where the line is approximately 15 feet below MLLW. The pipelines are buried below the seafloor surface, from four to nine feet deep; they do not have a history of exposure in the surf zone or elsewhere on the seafloor. In addition, the MND did not identify any impacts to the marine environment as a result of their abandonment in place.

The submarine electrical power cable that formerly connected Belmont Island to shore power is also proposed to be abandoned in place. The major component of the cable is copper wire; copper is a toxic substance which is known to bioaccumulate in the tissues of marine organisms, and can cause tissue damage or death in marine organisms (Brown 2000). The power cable is approximately 11,000 feet long, and is buried approximately six feet below the surface of the seafloor. It is expected to slowly corrode and remain within the sediment. However, copper that is contained in sediment in a bound form is less available and less toxic to marine organisms than the free ion form of copper (Brown 2000). In addition, the seafloor in the project area does not contain species of special biological or economic significance, and the in-place abandonment of the power cable is not expected to impede the long-term biological productivity of the marine environment.

Conclusion – Marine Resources and Water Quality

The Coastal Commission finds that the proposed project will not result in impacts to wetlands, kelp, eelgrass, or surfgrass, as none are found in the project area. There will be some incidental impacts to marine invertebrates, fish, and birds as a result of the project, but the biological productivity of the marine species found in the area will be maintained. The Commission further finds that there may be some short term, temporary, and localized impacts to coastal water and sediment quality. However, the proposed project will remove a human-made structure from the marine environment, resulting in restoration of the marine environment to a condition similar to the natural conditions present at the project site prior to island construction. Therefore, the Commission finds the project, as conditioned, consistent with sections 30230 and 30231 of the Coastal Act.

4.6.2 Oil and Gas Spills

Coastal Act § 30232 states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

4.6.2.1 Potential Project-Related Oil and Gas Spills

The proposed project has the potential to result in a release of hydrocarbons to the coastal environment due to the following causes: (a) accidental work vessel or derrick barge anchor damage to the nearby Aera-Beta pipeline, (b) removal of the hydrocarbon-impacted materials from within the caisson, (c) flushing the pipelines formerly used to transport oil and gas to the onshore facility, (d) grouting the 8-inch line, (e) spillage of oil or oily water from a work barge, (f) leakage or spillage of fuel or lubricants from work vessels or equipment, (g) removal of the creosote-treated wooden pilings, and (h) cutting the oil and gas pipelines offshore.

Potential Offshore Spills

The worst-case spill that could arise from project operations is the rupture of the Aera-Beta crude oil pipeline. The Aera-Beta pipeline brings oil from Platforms Elly, Ellen, and Eureka to onshore facilities in the Long Beach Harbor; it passes by Belmont Island on the seafloor (where it is buried), approximately 400 feet to the southwest. If ruptured during the project, a substantial oil spill could result. The 16-inch pipeline has a capacity of 22,000 barrels. If a work vessel or the derrick barge could anchor on top of the pipeline and rupture it, the applicant estimates that a spill of approximately 2,200 barrels of oil to the marine environment could occur.

While a rupture of the Aera-Beta pipeline is the worst-case spill that has the potential to occur during the project, there are other aspects of the project that could also result in a spill of hydrocarbons. For example, environmental assessments conducted for the project by Fugro West, Inc. in 1996 and Padre Associates in 1997 show that some of the components of Belmont Island are known to be contaminated with hydrocarbons as a result of the island's use as an oil and gas production facility: cellar number 2 and its contents, the 70 well conductors, and some of the sand, rock, and water in the caisson core. The concrete deck covering the core and its underlying grout may also be contaminated with hydrocarbons; project personnel will be able to determine if this is the case when they begin to remove the deck. As the components of the island are demolished and placed onto barges for removal, the possibility exists for hydrocarbon-impacted water or materials to fall into marine waters.

When the pipelines are being flushed and when the 8-inch line is being grouted, the pressure needed to conduct the operations could cause one or more of the lines to leak, releasing part of their contents to the marine environment.

The applicant's Oil Spill Contingency Plan notes that there is the potential that oil or oily water being transported on a work barge could be discharged to marine waters, and estimates that 5 barrels of oil could be discharged to marine waters in such a spill. The Oil Spill Contingency Plan also notes that leakage or spillage of fuel or lubricants from work vessels or equipment could occur during the project. Neither the Oil Spill Contingency Plan nor the environmental assessment in the MND describe how these accidents might occur, but one possible cause could be a loss of fuel or hydrocarbon impacted cargo from vessels or barges via a collision with another vessel or barge, due to the increased project related vessel traffic in the area.

In addition, some of the wooden pier pilings used as Belmont Island were treated with creosote, a substance derived from coal tar that is used as a pesticide and wood preservative. Creosote-treated pier pilings have been known to contribute polycyclic aromatic hydrocarbons (PAHs) to the marine environment, which can be toxic to biological resources⁶. When the creosote-treated pier pilings at Belmont Island are extracted and placed on barges for disposal at an approved Class I disposal site, it is possible that some creosote may be released into the marine

⁶ Refer to Coastal Development Permit No. 3-97-078 for a complete discussion and references.

environment either from the sediment or from the pilings themselves. Any piles that cannot be extracted are proposed to be cut off even with or below the bottom of the seafloor.

Finally, there is the potential for a release of hydrocarbons to the marine environment when the oil and gas lines are disconnected or cut. They are connected to Belmont Island via risers, which extend from the seafloor to the main deck. ExxonMobil proposes to excavate the rock and sand that buries the lines where they connect to the risers, then to disconnect or cut the lines with an oxy-arc underwater cutting torch. When the pipelines are separated, some of their contents, including any residual hydrocarbons, will release to the marine environment.

Potential Onshore Spills

To remove residual hydrocarbons from their interiors, the 8-inch oil pipeline, and the two 3-inch gas pipelines will be flushed with seawater prior to decommissioning. The lines will be flushed one at a time. Each line will be flushed from the island to the onshore property, and the flush water will be emptied into a Baker containment tank, which will be connected to the pipeline via a hose. If the hose were to become disconnected, it is estimated that a spill of approximately one barrel of wastewater could occur.

Prior to disconnecting the 8-inch pipeline from Belmont Island, the applicant proposes to fill the pipeline with approximately 3000 feet (40 cubic yards) of cement grout, from the onshore facility to a point corresponding to approximately 15 feet MLLW offshore (or about 2000 feet offshore from the MLLW line). The grout will displace approximately 8,000 gallons of seawater from the line; ExxonMobil proposes to route the water back through one of the other pipelines and collect it onshore in the same manner as the water generated by the flushing procedures. As with the flush water, the potential exists for a spill of water from the pipeline if the hose connecting the pipeline to the Baker tank becomes disconnected.

4.6.2.2 Oil and Gas Spill Prevention

The first test of Coastal Act section 30232 requires the applicant to provide “protection against the spillage of crude oil, gas, petroleum products, or hazardous substances...” ExxonMobil plans to implement a number of measures to minimize the risk of the occurrence of any hydrocarbon spills.

Offshore Spill Prevention

To avoid anchoring impacts to the Aera-Beta pipeline, ExxonMobil has developed anchoring plans and locations for its derrick barge and vessels, to eliminate the possibility that anchors would be dropped on the pipeline, thus possibly damaging it. Divers will buoy the pipeline, project personnel will not handle anchors while vessels are over the Aera-Beta pipeline, and the derrick barge will be anchored on the southeast side of the island. In addition, all vessel navigation systems for project vessels will be programmed to show the location of the pipeline.

Before beginning decommissioning activities, ExxonMobil personnel will conduct an inventory of hazardous materials; any such materials identified will be disposed of following applicable state and federal standards. As a condition of SLC's approval of this project, ExxonMobil will develop a Materials Handling Plan for the removal, containment, transportation, treatment, and disposal of impacted core materials. ExxonMobil has already incorporated several measures into the project to prevent spills of this material from occurring. One is that the caisson core will not be demolished until after the hydrocarbon-impacted fill and water is removed from it. The water will be tested with a field screening unit and verified by a certified laboratory, and any contaminated water will be vacuumed and placed in containers for treatment onshore. The fill will also be tested, and will be placed in containment bins for proper disposal onshore. The bins will be on or adjacent to the island during removal activities, to minimize the transfer of materials over the water and thus the potential for spills from this activity. Another measure ExxonMobil proposes is to install a containment system under the wharf decks to minimize the possibility that demolition materials will fall into the marine environment.

There is no known way to prevent a spill from the pipelines if the pressure exerted during flushing and grouting operations creates a leak; to prevent such a spill from being large, however, project personnel will patrol the lines, and the operations will be shut down as soon as any leak is detected.

To reduce the risk of accidents involving project vessels or other vessels transiting the area which could result in a spill of oil or other hydrocarbons from the cargo or fuel tanks, ExxonMobil will install aids to navigation on Belmont Island, establish a safety zone around the island during decommissioning activities, and work with the U.S. Coast Guard to ensure Notices to Mariners are issued prior to and during project operations. The aids to navigation will be battery operated lights and a foghorn, which will be installed on the island pursuant to Coast Guard regulations. Additional precautionary measure the applicant proposes are that the hydrocarbon-impacted water and material from the caisson core will be transported in specially designed containment bins, and all diesel-fired engines will be maintained and tuned to the manufacturer's specifications.

To prevent a potential spill of hydrocarbons from the oil and gas lines as they are cut, the applicant will first flush the lines with seawater.

Onshore Spill Prevention

During pipeline flushing, a portable, 900-gallon containment pool will be set up under the connection point between the hose and the pipeline, and a vacuum truck will be ready to remove any flush water from the pool. In addition, the pipeline is designed to shut down immediately, stopping the flow through the line, if pressure is lost within it. The pipelines are proposed to be flushed one at a time to a level until the level of total petroleum hydrocarbons (TPH) in the pipeline is 15 ppm or less, to ensure that when the pipelines are abandoned, they will be as clean of hydrocarbon content as possible. The level will be determined by a field screening device or by a certified laboratory. The applicant expects that any spill from the pipelines would be

contained by the pool; however, it is possible that a maximum of one barrel of wastewater could be released to the environment.

The grouting of the 8-inch line is proposed to occur after the line is flushed; therefore the applicant expects the TPH in the water in the line to be at or less than 15 ppm. The containment pool and the vacuum truck are also proposed to be used during the grouting of the 8-inch pipeline, to capture any spill of wastewater that might occur.

The California Ocean Plan contains objectives regarding maintenance of water quality; one objective relevant to this project is the objective that there should be no visible oil or grease. An oil sheen tends to form on water when the TPH level is approximately 15 ppm. For pipelines associated with marine terminals proposed for abandonment, it is the working policy of the SLC (Exhibit 6) that the pipelines be flushed to a standard of less than 15 ppm of TPH. To adhere to the Ocean Plan objective for oil and grease and to be consistent with the working policy of the SLC on pipeline flushing, the applicant's oil and gas pipelines should be flushed to a level of less than 15 ppm. Therefore, the Commission imposes **Special Condition 3**, which requires the applicant to clean the interior of the oil and gas pipelines to a level of less than 15 ppm TPH. The applicant does not specify the method by which the level of TPH will be verified. Field screening methods may be used for initial determinations, however, the Commission therefore imposes **Special Condition 4**, which requires that ExxonMobil document the level of TPH at the conclusion of flushing operations using a state-certified laboratory and a test method acceptable to the executive director. Within 30 days of completion of pipeline flushing, ExxonMobil will provide the test results to the executive director. The Commission finds that with the imposition of **Special Conditions 3** and **4**, the proposed project can be conducted in a manner that provides for protection against the spillage of crude oil, gas, and petroleum products, as required by section 30232 of the Coastal Act.

The Commission therefore finds the project, as conditioned, consistent with the first test of Coastal Act section 30232.

4.6.2.3 Spill Response

The second test of section 30232 requires the applicant to provide effective containment and cleanup equipment and procedures for accidental spills that do occur. Despite the preventive measures proposed by ExxonMobil, the possibility remains that an oil or gas release could occur during project operations.

Offshore Spill Response

An on-scene oil spill response team will be available to respond immediately to a spill, and the following equipment will be maintained at the project site: one seep tent, 3 bails of sorbent pads, 600 feet of sorbent boom, one boom tender vessel, and 1,000 feet of containment boom. The applicant estimates that this equipment is sufficient to respond to a spill of approximately 5

barrels, which would probably cover any potential offshore spill as a result of the proposed project with the exception of the reasonable worst-case spill, the rupture of the Aera-Beta line.

To respond to and clean up a spill from the Aera-Beta line or any other spill that could not be handled by project personnel, ExxonMobil will call upon Clean Coastal Waters (“CCW”), a cooperative, and if more response capability is needed, will also call the Marine Spill Response Corporation (“MSRC”) to assist. Currently, ExxonMobil’s membership with CCW is suspended, but it will be renewed prior to the start of project activities. ExxonMobil has a current service agreement with MSRC. To ensure that full oil spill response capabilities are in place, the Commission imposes **Special Condition 5**, requiring ExxonMobil to submit, prior to permit issuance, written evidence to the executive director that, for the duration of the Belmont Island decommissioning project, it has contracted with CCW for oil spill response and clean up services.

A CCW initial response vessel could be at the project site in approximately 30 minutes, and the primary response vessel, Clean Waters One, could be at the project site in approximately 45 minutes. Based in the Long Beach Harbor, CCW owns six other primary response vessels, two recovery vessels, three barges, and four work boats. Depending on which vessel initially responds, the equipment on board the vessel may include: 1,300 feet of Expandi Model 4300 boom, a boom reel, a power take off, a generator or other power source, a stationary or advancing skimmer, an oil/water separator and storage tank, an offloading pump, a 2.5 ton hydraulic crane with 15 feet of boom, sorbent pads, or sorbent booms. The primary response vessel, Clean Waters One, is equipped with the following: 3,750 feet of Expandi Model 4300 boom, four hydraulic power packs, two LORI LORS skimming systems, two advancing skimmer jibs with boom, two GT-185 skimmers, four offloading pumps, a 12-ton capacity hydraulic crane, 50 feet of boom, 20 bales of sorbent pads, and 800 feet of sorbent boom.

MSRC’s equipment held by a network of responders; its closest response vessel is based in Port Hueneme. It would only be called out in the unlikely event of a major spill, and would be able to be at the project site in approximately 7.5 hours.

When project personnel cut or separate the pipelines offshore in preparation for abandonment, the pipelines will have been flushed to remove residual hydrocarbons. The Coastal Commission has required in similar projects, such as in Permit No. E-98-26, that a seep tent be used to reduce the possibility of an uncontrolled release of residual hydrocarbons. A seep tent is a steel dome-like structure that can be placed over a flowline opening to capture a small hydrocarbon release. The contents of the tent are then pumped via a hose onto a holding tank on the support vessel. As a precautionary measure, the Commission is requiring in **Special Condition 6** that, prior to cutting the oil and gas pipelines offshore, ExxonMobil deploy a seep tent over each of the cut points and provide a support vessel to capture and remove from the marine environment any residual hydrocarbons that may be released from the lines when they are cut.

Regarding a potential spill of hydrocarbons due to the existence or removal of the creosote-treated pilings, the applicant proposes to visually inspect the water for sheen and to collect sediment samples adjacent to the pilings to determine if it contains creosote. Samples from three

locations will be collected, at a depth of approximately two feet below the seafloor surface. The proposal is to collect the samples using a mechanical airlift, which will place them in a pre-cleaned 5-gallon bucket. Sample jars will be filled using the materials in the buckets, and will be tested in a laboratory for volatile organic compounds and CAM-17 metals. If contaminants are found, the applicant proposes to continue testing the sediments to determine the extent of contamination, and to develop a plan to remove any creosote-contaminated sediments.

Notwithstanding the conditions of this permit and the extensive oil spill containment and cleanup equipment and services to be provided by ExxonMobil, CCW, and MSRC, the Commission finds that the second test of Coastal Act section 30232, which requires “effective” containment and clean-up equipment for spills that do occur, can not be met at this time, and thus the project is inconsistent with the second test of Coastal Act section 30232. The Commission interprets the word “effective” to mean that spill containment and recovery equipment must have the ability to keep spilled oil off the coastline. Unfortunately, the state-of-the-art oil spill response is such that no equipment currently available has the capability to recover all oil from large spills, and often even small spills, in the open ocean. For example, mechanical skimming devices typically remove less than 20% of the spilled petroleum in a large spill (National Research Council 1989). Nevertheless, the project can be found consistent with the Coastal Act under the section 30260 coastal-dependent industrial provision for the reasons discussed in section 4.6.7 of this report.

Onshore Spill Response

ExxonMobil proposes to have a team of personnel onsite to respond to and clean up any spill that could occur on shore during line flushing or grouting procedures, and estimates that the maximum spill that could occur onshore is one barrel. The equipment available on site to clean up a spill will be a vacuum truck, a backhoe and sorbent pads, and is sufficient to effectively clean up a project-related onshore spill.

The Commission finds that, for accidental spills on shore, the proposed project is consistent with the second requirement of Coastal Act section 30232.

4.6.3 Commercial and Recreational Fishing

Coastal Act § 30234.5 states:

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

Commercial fishing does not occur at the project area and therefore will not be impacted by decommissioning activities. Although Belmont Island is surrounded by a U.S. Coast Guard 200-foot preclusion area, recreational fishing has been known to occur at the island. The Commission thus recognizes that removal of the island will eliminate this recreational fishing site. However, the express purpose of the island was exclusively for oil and gas extraction and not fisheries and/or recreational enhancement. The SLC requires the operator as part of the lease

termination or quitclaim process to restore the site back to its pre-development condition. Therefore, sports fishermen that have successfully fished at the island over the years derived an incidental economic and/or recreational benefit from the placement of the rip-rap, pilings and other structures on the seafloor.

The Commission thus finds the project consistent with Coastal Act section 30234.5.

4.6.4 Public Access and Recreation

Coastal Act § 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resources from overuse.

Coastal Act § 30211 states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Belmont Island is approximately 8,100 feet offshore of the City of Seal Beach. Recreational uses of this area of the coast include boating, jet skiing, fishing, diving and snorkeling. General boating and jet skiing activities may be temporarily affected by the activities associated with island decommissioning particularly due to increased vessel traffic in the area. However, such impacts will be minor and short-term. The applicant proposes to issue through the U.S. Coast Guard in advance of the start of decommissioning activities a Notice to Mariners so that boaters and other ocean users will be adequately notified of project operations.

Removal of the island will affect those recreational users that currently use the island for fishing. However, as discussed above in section 4.6.3 of this report, Belmont Island was installed as a human-made oil and gas production island only and any benefits that may have accrued to recreational users over the life of the island have been incidental.

ExxonMobil retains a private parking area within the marina and therefore no public parking spaces will be occupied by project-related vehicles during the decommissioning project. All staging and stockpiling of materials and equipment will occur at ExxonMobil's onshore facility or at the Long Beach Harbor. No decommissioning activities will interfere with the public's access to and the ability to recreate at the beach.

The applicant also proposes to abandon in place four pipelines and one power cable that are currently buried 4 to 9 feet below the surface of the seafloor and ground. To remove the pipelines and cable would require extensive onshore and offshore excavation and could cause significant

public access and recreation impacts due to beach closures and near-shore construction activities. Any future exposure of the pipelines and cable on the beach or in the near-shore area could, however, cause a hazard to beach and recreational users. The pipelines and cable are unlikely ever to be uncovered because they are located in a high depositional offshore environment and have never been exposed. However, in the event that they are exposed in the future, the Commission is requiring in **Special Condition 7** that if any of the facilities (i.e., four pipelines and the power cable) become exposed to the natural (i.e., air or aquatic) environment, the executive director will schedule for the Commission's consideration the question of whether removal of the facilities may be necessary to mitigate individual or cumulative adverse impacts to coastal resources. If the Commission agrees that the facilities should be removed, ExxonMobil shall, within 60 days of such a determination, submit a plan for removal of such facilities in the form of an application to amend this permit.

The Commission thus finds that the project, as conditioned, will not adversely impact recreational users or public access to the beach and is therefore consistent with Coastal Act sections 30210 and 30211.

4.6.5 Visual Resources

Coastal Act § 30251 states, in part:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

During the eight-month project duration a derrick barge and crew and supply boats will be operating at the project site and traveling to and from their ports of origin (either Long Beach or Los Angeles). Operations will be visible; however, since the island is about 8,100 feet offshore, decommissioning operations will not be a major element of the viewshed as seen from shore. The project will therefore not result in significant adverse short-term visual impacts and will enhance the long-term visual quality of this area of the coast when the industrial human-made structure is removed.

The Commission thus finds the proposed project consistent with the scenic and visual goals of Coastal Act section 30251.

4.6.6 Air Quality

Coastal Act § 30253(3) states:

New development shall be consistent with requirements imposed by the air pollution control district or the State Air Resources Control Board as to each particular development.

The MND states that the use of equipment, vessels, and vehicles for project operations will result in criteria pollutant emissions, including nitrogen oxides (NO_x), reactive organic compounds (ROC), particular matter less than ten microns in size (PM₁₀), sulfur oxides (SO_x), carbon monoxide (CO), and toxic pollutant emissions, such as formaldehyde, acetaldehyde, 1,3-butadiene, and benzene. The sources of project air emissions include cranes; winches; generators; forklifts; pumps; welders; air compressors; concrete saws; a vibratory extractor; diesel-fueled internal combustion engines on the dive vessel; two tug boats; crew boats; employee transportation vehicles; and heavy-duty hauling trucks. During removal of hydrocarbon-contaminated fill material in the caisson core, there is the potential that some fugitive low-volatility hydrocarbons could be released to the atmosphere. In addition, a minimal amount of fugitive dust will be generated during concrete sawing and material removal activities on the island.

The MND states that ten of the proposed project activities are projected to exceed daily and quarterly NO_x emissions, and concludes that the project will thus have a significant air quality impact. To minimize criteria pollutant emissions, Exxon Mobil will comply with all requirements of the SCAQMD (Rules 401, 402, 404, 431.2, 1110.2).

The applicant proposes the following mitigation measures (of these, the first four were incorporated by the SLC into its Mitigation Monitoring Program):

- maintain all diesel engines in good condition and keep them properly tuned to the manufacturer's specifications;
- retard engine timing four degrees for all internal combustion engines, when feasible, to reduce NO_x emissions 20-30%;
- limit the number of diesel engines operating at any one time;
- suspend project activities when necessary during health advisories or Stage 1 smog alerts;
- cool the concrete saws with water during cutting activities to minimize fugitive dust; and
- use only equipment that has a valid operating permit from the SCAQMD or is registered under the California Statewide Portable Equipment Registration Program.

Regarding fugitive low-volatility hydrocarbons that could be generated by the project, the amounts are projected to be minimal and unquantifiable. ExxonMobil proposes to conduct all waste removal, transportation and disposal activities in compliance with the SCAQMD's Rule 1166, which governs volatile organic compound emissions from decontamination of soil.

SCAQMD staff will review the proposed project to determine if air quality permits will be required for decommissioning activities and project equipment, and if mitigation measures beyond those contained in the MND are necessary to offset project-related air quality impacts. Therefore, the Commission is imposing **Special Condition 8**, which requires the applicant, prior to issuance of this permit, to submit to the executive director copies of the permit(s) issued by the

SCAQMD for the decommissioning project and project equipment; and written evidence of mitigation measures, if any, the SCAQMD is imposing to offset project-related air quality impacts. If the SCAQMD is not requiring permits or mitigations for this project, the applicant shall submit to the executive director written evidence of a waiver for this project from the SCAQMD. As conditioned, the Coastal Commission finds that the proposed project is consistent with section 30253(3) of the Coastal Act, which requires that a development project must be consistent with a local air district's requirements.

4.6.7 Coastal-Dependent “Override” Provision

Section 30101 of the Coastal Act defines a coastal-dependent development or use as that which “requires a site on or adjacent to the sea to be able to function at all.” Ports, commercial fishing facilities, and offshore oil and gas developments (e.g., the decommissioning of an offshore oil and gas production island) are examples of development considered “coastal dependent” under section 30101.

In section 30260, the Coastal Act further provides for special approval of coastal-dependent industrial facilities that are otherwise found inconsistent with the resource protection and use policies contained in Chapter 3 of the Coastal Act. The decommissioning of Belmont Island qualifies as a “coastal-dependent industrial facility.” Coastal-dependent industrial facilities must first be evaluated under all applicable Chapter 3 policies. If the proposed project does not meet one or more of these policies, the development can then be analyzed under the three requirements of section 30620 of the Coastal Act. Coastal Act § 30260 specifically states:

Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and section 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

As described in section 4.6.2 of this report, ExxonMobil's proposed project does not meet the standards of section 30232 due to the significant impacts that could be caused by an accidental offshore oil spill. Since the project qualifies as a “coastal-dependent industrial facility” the Commission may nevertheless approve the project if the three requirements of section 30260 can be met.

4.6.7.1 Alternative Locations

The Coastal Commission may approve the proposed development if notwithstanding the project's inconsistency with one or more policies of Chapter 3 it finds that alternative project locations are infeasible or more environmentally damaging. The proposed project is to decommission an existing offshore artificial oil and gas production island. Since this project

involves removal and abandonment-in-place of existing facilities, the issue of whether the project is sited in the least environmentally damaging location is not applicable. Therefore the proposed project is consistent with the first test of section 30260.

4.6.7.2 Public Welfare

The second test of Coastal Act section 30260 states that non-conforming coastal-dependent industrial development may be permitted “if to do otherwise would adversely affect the public welfare.” The test requires more than a finding that, on balance, a project as proposed is in the interest of the public. It requires that the Coastal Commission find that there would be a detriment to the public welfare were the Coastal Commission to deny a permit for the project.

The proposed project involves the decommissioning of an existing offshore artificial oil and gas production island and its associated wells as required by State Lands Commission oil and gas lease provisions. Improperly abandoned wells could potentially cause a hydrocarbon release into marine waters. To deny the project would also mean that the shut-in industrial facility will be left in place and cause adverse long-term shoreline visual impacts. Thus, denial of the project may be detrimental to the public’s welfare.

However, in addition to determining whether a refusal to allow the project to be carried at all would adversely affect the public welfare (which the Commission has answered in the affirmative), the Commission must also determine whether a refusal to allow the project to be carried out precisely in the manner proposed by the applicant would adversely affect the public interest.

In previous sections of these findings, the Commission has identified the valuable public policy goals that will be furthered by imposing additional mitigation measures. The question thus becomes whether the conditions of this permit which impose additional mitigation upon the applicant will have an adverse effect on the public interest. The applicant has made no showing that such requirements are financially or otherwise infeasible. Therefore, the Commission finds that the proposed project, as conditioned by this permit, will not have an adverse effect on the public welfare. The proposed project is therefore consistent with the second test of section 30260.

4.6.7.3 Maximum Feasible Mitigation

The third test in section 30260 requires a finding that the adverse environmental impacts of a proposed project have been mitigated to the maximum extent feasible. As discussed in section 4.6.2 of this report, the Commission has determined that the project is inconsistent with Coastal Act section 30232 due to the potential for and resulting impacts of an offshore oil spill. However, upon the applicant’s acceptance of this permit, as conditioned, the Commission can find that the environmental impacts generated by this project have been mitigated to the maximum extent feasible.

5.0 California Environmental Quality Act

As “lead agency” under CEQA, the State Lands Commission certified in December 1999 a mitigated Negative Declaration for ExxonMobil’s Belmont Island Decommissioning Project.

The Commission’s permit process has also been designated by the State Resources Agency as the functional equivalent of the CEQA environmental impact review process. Pursuant to section 21080.5(d)(2)(A) of the CEQA and section 15252(b)(1) of Title 14, California Code of Regulations, the Commission may not approve a development project “if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment.” The Commission finds that there are no feasible less environmentally damaging alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the activity may have on the environment, other than those identified herein. Therefore, the Commission finds that the project is consistent with the provisions of the CEQA.

APPENDIX A

Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

APPENDIX B

Substantive File Documents

Beck, Tim, M.A., Secretary, Heal the Harbor, Inc. 1999. Letter to the Executive Director, California Coastal Commission, dated December 6, 1999.

Brown, Dave. 2000. *Copper in the Environment*. Published on the Internet at <http://www.science.mcmaster.ca/Biology/4S03/COPPER.HTM>.

California Coastal Commission. Coastal Development Permit 3-97-078 (Port San Luis Harbor District Maintenance Dredging and Disposal and Repair and Maintenance of Harbor Structures); Consistency Certification CC-81-95 (California Department of Fish and Game Bolsa Chica Artificial Reef); Coastal Development Permit Waiver – De Minimis E-99-03-W (Exxon Company U.S.A. Belmont Island Well Flushing and Conductor Cutting); and E-99-12-W (Exxon Company Seal Beach Onshore Facility Building Demolition and Removal).

California State Lands Commission. 1999a. *Initial Study and Negative Declaration for Belmont Island Decommissioning Project*. March 1999.

California State Lands Commission. 1999b. Calendar Item 76. *Reconsider Adoption of Mitigated Negative Declaration and Consider Approval of the Abandonment and Removal of and Oil and Gas Drilling and Production Man-Made Island, Belmont Field, Orange County*. December 3, 1999.

Dawson, Scott A., Planning Section, California Regional Water Quality Control Board, Santa Ana Region. 1999. Letter to Goodyear Walker, California State Lands Commission, dated May 4, 1999.

De Wit, L.A., Consultant. 1999. *Belmont Island Decommissioning Marine Biological Survey*. Prepared for Padre Associates. July 1999.

Dugas, Brian G., Project Manager, Padre Associates, Inc. 1999. Letter to Ms. Lilli Ferguson, Coastal Program Analyst, California Coastal Commission, dated May 7, 1999.

Exxon Company, U.S.A. 1999. *Project Execution Plan for Belmont Island Decommissioning Project*. Prepared with the assistance of Padre Associates, Inc. and Longitude 123. March 1999.

Fugro West, Inc. 1996. *Preliminary Environmental Assessment, Belmont Island Facility, Offshore of Seal Beach, Orange County, California.*

Garcia, Linda C., Associate WRC Engineer – Planning, California Regional Water Quality Control Board, Santa Ana Region. 1999. Letter to Mr. Tim Cagle, Exxon Company, U.S.A., dated May 3, 1999.

Gregory, Gary L., Assistant Executive Officer and Chief, Marine Facilities Division, California State Lands Commission. 1999. Letter to Mr. Joe Gonzalez, Estero Marine Terminal, dated March 8, 1999.

Hebert, Donna M., Project Manager, Padre Associates. 1999. Letter to Mr. Russ Kaiser, U.S. Army Corps of Engineers. Dated May 25, 1999.

Kaiser, Russ, Regulatory Branch, Los Angeles District, U.S. Army Corps of Engineers. 1999. Fax to Ms. Lilli Ferguson, Coastal Program Analyst, California Coastal Commission, dated August 16, 1999.

National Research Council. 1989. *Using Oil Dispersants on the Sea.* National Academy Press: Washington, DC.

Schubel, Richard J., Chief, Regulatory Branch, Los Angeles District, U.S. Army Corps of Engineers. 1999. Letter to Mr. Tim Cagle, Exxon Company U.S.A., dated April 27, 1999.

Stewart, Gary, Chief, Regulations Section, California Regional Water Quality Control Board, Santa Ana Region. 1999a. Letter to Mr. Tim Cagle, Exxon Company U.S.A., dated May 6, 1999.

Stewart, Gary, Chief, Regulations Section, California Regional Water Quality Control Board, Santa Ana Region. 1999b. Letter to Ms. Donna M. Hebert, Project Manager, Padre Associates, Inc., dated June 23, 1999.

Weber, Mike, Environmental Specialist, Padre Associates, Inc. 1999a. Letter to Ms. Lilli Ferguson, Coastal Program Analyst, California Coastal Commission, dated December 17, 1999.

Weber, Mike, Environmental Specialist, Padre Associates, Inc. 1999b. Letter to Ms. Lilli Ferguson, Coastal Program Analyst, California Coastal Commission, dated December 30, 1999.

Weber, Mike, Environmental Specialist, Padre Associates, Inc. 2000. Letter to Ms. Lilli Ferguson, Coastal Program Analyst, California Coastal Commission, dated January 7, 2000.

Zukor, Ryan M. and Alan E. Emslie, P.E., Senior Principal, Padre Associates, Inc. 1999. Letter and report to Mr. Tim Cagle, ExxonMobil Production Company, documenting concrete coring activities and laboratory analyses, Belmont Island facility, dated December 30, 1999.